

# PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

**PCT**

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner  
US Department of Commerce  
United States Patent and Trademark  
Office, PCT  
2011 South Clark Place Room  
CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE  
in its capacity as elected Office

Date of mailing (day/month/year)

28 February 2001 (28.02.01)

International application No.

PCT/EP00/06423

Applicant's or agent's file reference

CS/K-22046/A

International filing date (day/month/year)

06 July 2000 (06.07.00)

Priority date (day/month/year)

14 July 1999 (14.07.99)

Applicant

RICKERT, Christoph et al

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

15 January 2001 (15.01.01)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was



was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

R. E. Stoffel

Telephone No.: (41-22) 338.83.38

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>CS/K-22046/A</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 00/ 06423</b>	International filing date (day/month/year) <b>06/07/2000</b>	(Earliest) Priority Date (day/month/year) <b>14/07/1999</b>
Applicant <b>VANTICO AG</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. The figure of the drawings to be published with the abstract is Figure No.**

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

## INTERNATIONAL SEARCH REPORT

Intern Application No

PCT/EP 00/06423

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C09D163/00 C09D167/00 C09D5/03

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C09D C08L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE WPI Section Ch, Week 198232 Derwent Publications Ltd., London, GB; Class A14, AN 1982-67201E XP002153114 &amp; JP 57 108166 A (DAINIPPON INK &amp; CHEM KK) , 6 July 1982 (1982-07-06) cited in the application abstract</p> <p>---</p>	1-15
X	<p>DATABASE WPI Section Ch, Week 199005 Derwent Publications Ltd., London, GB; Class A21, AN 1990-034454 XP002153115 &amp; JP 01 313573 A (NIPPON OILS &amp; FATS CO LTD), 19 December 1989 (1989-12-19) abstract</p> <p>---</p> <p>-/--</p>	1-15

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## ° Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

16 November 2000

Date of mailing of the international search report

30/11/2000

Name and mailing address of the ISA

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NL - 2280 HV Rijswijk  
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Fax: (+31-70) 340-3016

Authorized officer

O'Sullivan, T

## INTERNATIONAL SEARCH REPORT

Intern Application No  
PCT/EP 00/06423

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DATABASE WPI Section Ch, Week 199108 Derwent Publications Ltd., London, GB; Class A23, AN 1991-055800 XP002153116 & JP 03 007757 A (TORAY IND INC), 14 January 1991 (1991-01-14) abstract ---	1-15
A	US 4 242 253 A (YALLOURAKIS MICHAEL D) 30 December 1980 (1980-12-30) claim 1; example 1 ---	1-15
A	EP 0 600 546 A (DSM NV) 8 June 1994 (1994-06-08) cited in the application examples IX, XXIX; tables 5,6 -----	1-15

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/06423

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 57108166 A	06-07-1982	JP 1040067 B JP 1577467 C	24-08-1989 24-08-1990
JP 1313573 A	19-12-1989	NONE	
JP 3007757 A	14-01-1991	JP 1693615 C JP 3059102 B	17-09-1992 09-09-1991
US 4242253 A	30-12-1980	NONE	
EP 0600546 A	08-06-1994	NL 9301239 A AT 178930 T AU 666412 B AU 5206493 A BE 1007804 A BG 62366 B BG 98252 A BR 9304893 A CA 2110193 A,C CN 1089290 A,B CN 1195680 A CZ 9302587 A DE 4340974 A DE 69324449 D DE 69324449 T DK 600546 T ES 2131554 T FI 935344 A GR 3030736 T HU 67429 A IL 107806 A JP 2798592 B JP 6336561 A MX 9307493 A NO 934352 A NZ 250321 A PL 301250 A PL 174401 B RO 113473 B SK 134593 A US 5728779 A ZA 9308961 A AT 168394 T AU 680504 B AU 6857394 A CZ 9502943 A DE 69411731 D EP 0698053 A ES 2121208 T JP 8510001 T WO 9426808 A NO 954558 A US 5789493 A CN 1123032 A	01-02-1995 15-04-1999 08-02-1996 16-06-1994 24-10-1995 30-09-1999 15-07-1994 05-07-1994 02-06-1994 13-07-1994 14-10-1998 15-06-1994 16-06-1994 20-05-1999 16-12-1999 25-10-1999 01-08-1999 02-06-1994 30-11-1999 28-04-1995 16-08-1998 17-09-1998 06-12-1994 31-08-1994 02-06-1994 28-03-1995 13-06-1994 31-07-1998 30-07-1998 06-07-1994 17-03-1998 30-05-1995 15-08-1998 31-07-1997 12-12-1994 14-02-1996 20-08-1998 28-02-1996 16-11-1998 22-10-1996 24-11-1994 13-11-1995 04-08-1998 22-05-1996

**PCT**

REC'D 18 OCT 2001

WIPO

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**



(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CS/K-22046/A	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/06423	International filing date (day/month/year) 06/07/2000	Priority date (day/month/year) 14/07/1999
International Patent Classification (IPC) or national classification and IPC C09D163/00		
Applicant VANTICO AG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 15/01/2001	Date of completion of this report 18.10.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized officer O'Sullivan, T Telephone No. +31 70 340 2795 

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/06423

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1-14 as originally filed

**Claims, No.:**

1-17 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/06423

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Yes:	Claims	1-17
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-17
Industrial applicability (IA)	Yes:	Claims	1-17
	No:	Claims	

### 2. Citations and explanations see separate sheet

## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
see separate sheet



**Re Item V**

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

D1: WPI, Derwent, AN 1982-67201E & JP-A-57108166

D2: WPI, Derwent, AN 1990-034454 & JP-A-1313573

1.0 The subject-matter of the present application is distinguished from that of D1, as admitted by the Applicant himself on page 1 of the present description, by the composition of the present application having less than 2 wt% of the glycidyl acrylate polymer (B). D1 discloses powder coating compositions with a minimum of 2.5 wt % of component (B). The Applicant alleges on page 2 of the present description that the effect of this small difference (i.e. 0.5 wt % less of (B)) with D1 is improved flow-behaviour. However, upon analysis of the present comparative examples it is immediately apparent that this alleged improvement relative to the state of the art does not stem from a true comparison with D1. D1 clearly relates to compositions containing both glycidyl acrylate polymer and a separate epoxy resin component, whilst the present comparative examples only contain the glycidyl acrylate polymer component. Given the failure to provide a true comparison with the very closely related closest state of the art in D1 and the given the small difference (i.e. as low as 0.5 wt % of (B)) of the distinguishing feature in the present case, the presence of an inventive step in present Claim 1 must be questioned.

It should additionally be noted that none of the present sub-claims contain subject-matter which on face-value at least is sufficient to establish an inventive step.

However, the Applicant may care to consider that if a true comparative test with D1 can be provided which also shows the alleged improvement in flow properties, then a strong case for the presence of an inventive step in the present application can be made.

2.0 The reasoning of the proceeding section self-evidently also applies to the case of D2, which also attacks the inventivity in the present application.

**Re Item VIII**

Certain observations on the international application

1.0 It is clear from the description on page 3, lines 5-7 that the following feature is essential to the definition of the invention:

- Component B) constitutes from 5 to 95 percent of the total weight of components B) and C) and the molar ratio of glycidyl groups to carboxyl groups in the composition is from 1.3:1 to 1:1.3.

Since independent claim 1 does not contain this feature it does not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

2.0 The embodiment of the invention described on page 2, lines 6-7 does not fall within the scope of the claims. Claim 1 claims a specific range for component (B) with 2 wt % as the upper limit and not to all compositions containing a maximum of 2 wt % of (B). This inconsistency between the claims and the description leads to doubt concerning the matter for which protection is sought, thereby rendering the claims unclear (Article 6 PCT).

VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT  
AUF DEM GEBIET DES PATENTWESENS

PCT

INTERNATIONALER RECHERCHENBERICHT

(Artikel 18 sowie Regeln 43 und 44 PCT)

Aktenzeichen des Anmelders oder Anwalts <b>2774chvo</b>	<b>WEITERES VORGEHEN</b> siehe Mitteilung über die Übermittlung des internationalen Recherchenberichts (Formblatt PCT/ISA/220) sowie, soweit zutreffend, nachstehender Punkt 5	
Internationales Aktenzeichen <b>PCT/EP 00/ 06844</b>	Internationales Anmeldedatum (Tag/Monat/Jahr) <b>18/07/2000</b>	(Frühestes) Prioritätsdatum (Tag/Monat/Jahr) <b>31/07/1999</b>
Anmelder  <b>PRESTELE, Eugen</b>		

Dieser internationale Recherchenbericht wurde von der Internationalen Recherchenbehörde erstellt und wird dem Anmelder gemäß Artikel 18 übermittelt. Eine Kopie wird dem Internationalen Büro übermittelt.

Dieser internationale Recherchenbericht umfaßt insgesamt 2 Blätter.

☒ Darüber hinaus liegt ihm jeweils eine Kopie der in diesem Bericht genannten Unterlagen zum Stand der Technik bei.

1. Grundlage des Berichts

- a. Hinsichtlich der **Sprache** ist die internationale Recherche auf der Grundlage der internationalen Anmeldung in der Sprache durchgeführt worden, in der sie eingereicht wurde, sofern unter diesem Punkt nichts anderes angegeben ist.

☐ Die internationale Recherche ist auf der Grundlage einer bei der Behörde eingereichten Übersetzung der internationalen Anmeldung (Regel 23.1 b)) durchgeführt worden.

- b. Hinsichtlich der in der internationalen Anmeldung offenbarten **Nucleotid- und/oder Aminosäuresequenz** ist die internationale Recherche auf der Grundlage des Sequenzprotokolls durchgeführt worden, das

☐ in der internationalen Anmeldung in schriftlicher Form enthalten ist.

☐ zusammen mit der internationalen Anmeldung in computerlesbarer Form eingereicht worden ist.

☐ bei der Behörde nachträglich in schriftlicher Form eingereicht worden ist.

☐ bei der Behörde nachträglich in computerlesbarer Form eingereicht worden ist.

☐ Die Erklärung, daß das nachträglich eingereichte schriftliche Sequenzprotokoll nicht über den Offenbarungsgehalt der internationalen Anmeldung im Anmeldezeitpunkt hinausgeht, wurde vorgelegt.

☐ Die Erklärung, daß die in computerlesbarer Form erfaßten Informationen dem schriftlichen Sequenzprotokoll entsprechen, wurde vorgelegt.

2. ☐ Bestimmte Ansprüche haben sich als nicht recherchierbar erwiesen (siehe Feld I).

3. ☐ Mangelnde Einheitlichkeit der Erfindung (siehe Feld II).

4. Hinsichtlich der **Bezeichnung der Erfindung**

☒ wird der vom Anmelder eingereichte Wortlaut genehmigt.

☐ wurde der Wortlaut von der Behörde wie folgt festgesetzt:

5. Hinsichtlich der **Zusammenfassung**

☒ wird der vom Anmelder eingereichte Wortlaut genehmigt.

☐ wurde der Wortlaut nach Regel 38.2b) in der in Feld III angegebenen Fassung von der Behörde festgesetzt. Der Anmelder kann der Behörde innerhalb eines Monats nach dem Datum der Absendung dieses internationalen Recherchenberichts eine Stellungnahme vorlegen.

6. Folgende Abbildung der **Zeichnungen** ist mit der Zusammenfassung zu veröffentlichen: Abb. Nr. 1

☒ wie vom Anmelder vorgeschlagen

☐ keine der Abb.

☐ weil der Anmelder selbst keine Abbildung vorgeschlagen hat.

☐ weil diese Abbildung die Erfindung besser kennzeichnet.

A. KLASSIFIZIERUNG DES ANMELDUNGSGEGENSTANDES  
IPK 7 B65D83/00 B65D81/32 B05C17/005

Nach der Internationalen Patentklassifikation (IPK) oder nach der nationalen Klassifikation und der IPK

B. RECHERCHIERTE GEBIETE

Recherchierter Mindestprüfstoff (Klassifikationssystem und Klassifikationssymbole)  
IPK 7 B65D B05C

Recherchierte aber nicht zum Mindestprüfstoff gehörende Veröffentlichungen, soweit diese unter die recherchierten Gebiete fallen

Während der internationalen Recherche konsultierte elektronische Datenbank (Name der Datenbank und evtl. verwendete Suchbegriffe)

EPO-Internal

C. ALS WESENTLICH ANGESEHENE UNTERLAGEN

Kategorie*	Bezeichnung der Veröffentlichung, soweit erforderlich unter Angabe der in Betracht kommenden Teile	Betr. Anspruch Nr.
X	US 5 249 709 A (CLEMENS RICHARD W ET AL) 5. Oktober 1993 (1993-10-05) Spalte 4, Zeile 20 - Zeile 68; Abbildungen 7,8	1,2,4
Y	---	3
Y	WO 99 36188 A (PRESTELE EUGEN) 22. Juli 1999 (1999-07-22) Seite 2, Zeile 15 -Seite 3, Zeile 20; Abbildungen 1-4	3
A	---	1
A	US 5 620 423 A (EYKMANN RUDOLF ET AL) 15. April 1997 (1997-04-15) Abbildungen 2,3	1
	-----	

☐ Weitere Veröffentlichungen sind der Fortsetzung von Feld C zu entnehmen

☒ Siehe Anhang Patentfamilie

\* Besondere Kategorien von angegebenen Veröffentlichungen :

- \*A\* Veröffentlichung, die den allgemeinen Stand der Technik definiert, aber nicht als besonders bedeutsam anzusehen ist
- \*E\* älteres Dokument, das jedoch erst am oder nach dem internationalen Anmeldedatum veröffentlicht worden ist
- \*L\* Veröffentlichung, die geeignet ist, einen Prioritätsanspruch zweifelhaft erscheinen zu lassen, oder durch die das Veröffentlichungsdatum einer anderen im Recherchenbericht genannten Veröffentlichung belegt werden soll oder die aus einem anderen besonderen Grund angegeben ist (wie ausgeführt)
- \*O\* Veröffentlichung, die sich auf eine mündliche Offenbarung, eine Benutzung, eine Ausstellung oder andere Maßnahmen bezieht
- \*P\* Veröffentlichung, die vor dem internationalen Anmeldedatum, aber nach dem beanspruchten Prioritätsdatum veröffentlicht worden ist

\*T\* Spätere Veröffentlichung, die nach dem internationalen Anmeldedatum oder dem Prioritätsdatum veröffentlicht worden ist und mit der Anmeldung nicht kollidiert, sondern nur zum Verständnis des der Erfindung zugrundeliegenden Prinzips oder der ihr zugrundeliegenden Theorie angegeben ist

\*X\* Veröffentlichung von besonderer Bedeutung; die beanspruchte Erfindung kann allein aufgrund dieser Veröffentlichung nicht als neu oder auf erfinderischer Tätigkeit beruhend betrachtet werden

\*Y\* Veröffentlichung von besonderer Bedeutung; die beanspruchte Erfindung kann nicht als auf erfinderischer Tätigkeit beruhend betrachtet werden, wenn die Veröffentlichung mit einer oder mehreren anderen Veröffentlichungen dieser Kategorie in Verbindung gebracht wird und diese Verbindung für einen Fachmann naheliegend ist

\*Z\* Veröffentlichung, die Mitglied derselben Patentfamilie ist

Datum des Abschlusses der internationalen Recherche

21. November 2000

Absendedatum des internationalen Recherchenberichts

30/11/2000

Name und Postanschrift der Internationalen Recherchenbehörde  
Europäisches Patentamt, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Bevollmächtigter Bediensteter

Spettel, J

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/06844

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5249709	A	05-10-1993	WO	9105731 A	02-05-1991
WO 9936188	A	22-07-1999	DE	29800594 U	26-03-1998
			EP	0966331 A	29-12-1999
US 5620423	A	15-04-1997	DE	4332308 C	29-09-1994
			AT	160693 T	15-12-1997
			CA	2132678 A	24-03-1995
			EP	0645122 A	29-03-1995
			JP	7163587 A	27-06-1995

(19) World Intellectual Property Organization  
International Bureau

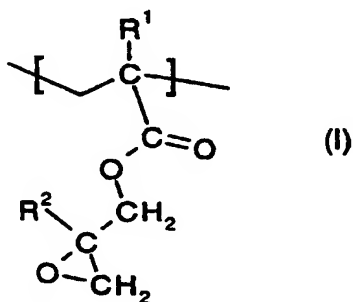


(43) International Publication Date  
25 January 2001 (25.01.2001)

PCT

(10) International Publication Number  
**WO 01/05901 A1**

- (51) International Patent Classification<sup>7</sup>: C09D 163/00, 167/00, 5/03
- (21) International Application Number: PCT/EP00/06423
- (22) International Filing Date: 6 July 2000 (06.07.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
1304/99 14 July 1999 (14.07.1999) CH
- (71) Applicant (for all designated States except US): VANTICO AG [CH/CH]; Klybeckstrasse 200, CH-4057 Basel (CH).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): RICKERT, Christoph [CH/CH]; Hauptstrasse 130, CH-4153 Reinach (CH). ROTH, Martin [CH/CH]; Hohenweg 44, CH-4434 Hölstein (CH). TURPIN, François [FR/FR]; 29, rue Barbanègre, F-68330 Huningue (FR). FRANÇOIS, Jacques [FR/FR]; 36, rue De Lectoure, F-68300 Saint Louis (FR). PETSCHER, Klaus [DE/DE]; Bettingerstrasse 106, D-79639 Grenzach-Wyhlen (DE).
- (54) Title: CURABLE COMPOSITION
- (57) Abstract: Curable compositions comprising: (A) from 80 to 97.9 percent by weight, based on the total amount of components (A), (B) and (C), of a polyester component having an acid number in total of from 10 to 40 mg of KOH per gram of the component and consisting of one or more polyesters containing free carboxyl groups; (B) from 0.2 to 2 percent by weight, based on the total amount of components (A), (B) and (C), of a component consisting of one or more polymers or copolymers that each have an epoxy value of at least 3 equivalents per kilogram and a molecular weight (number average  $M_n$ ) of from 800 to 20 000 and that contain identical or different structural repeating units of formula (I): wherein  $R^1$  and  $R^2$  are each independently of the other a hydrogen atom or a methyl group; and (C) a component consisting of one or more monomeric polyglycidyl compounds having an epoxy value of at least 3.5 equivalents per kilogram and a maximum molecular weight of 600, the amount of component (C) in percent by weight, based on the total amount of components (A), (B) and (C), corresponding to the difference between 100 and the sum of the percentage amounts of components (A) and (B) based on the total amount of components (A), (B) and (C); and (D) an accelerator for the reaction of epoxy groups with carboxyl groups are suitable especially as powder coating compositions.
- Published:  
— With international search report.  
— Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 01/05901 A1

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 00/06423

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C09D163/00 C09D167/00 C09D5/03

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C09D C08L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE WPI Section Ch, Week 198232 Derwent Publications Ltd., London, GB; Class A14, AN 1982-67201E XP002153114 &amp; JP 57 108166 A (DAINIPPON INK &amp; CHEM KK) , 6 July 1982 (1982-07-06) cited in the application abstract</p> <p style="text-align: center;">---</p>	1-15
X	<p>DATABASE WPI Section Ch, Week 199005 Derwent Publications Ltd., London, GB; Class A21, AN 1990-034454 XP002153115 &amp; JP 01 313573 A (NIPPON OILS &amp; FATS CO LTD), 19 December 1989 (1989-12-19) abstract</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	1-15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

16 November 2000

Date of mailing of the international search report

30/11/2000

Name and mailing address of the ISA

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Authorized officer

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 00/06423

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DATABASE WPI Section Ch, Week 199108 Derwent Publications Ltd., London, GB; Class A23, AN 1991-055800 XP002153116 &amp; JP 03 007757 A (TORAY IND INC), 14 January 1991 (1991-01-14) abstract</p>	1-15
A	<p>US 4 242 253 A (YALLOURAKIS MICHAEL D) 30 December 1980 (1980-12-30) claim 1; example 1</p>	1-15
A	<p>EP 0 600 546 A (DSM NV) 8 June 1994 (1994-06-08) cited in the application examples IX, XXIX; tables 5, 6</p>	1-15



# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/06423

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 57108166 A	06-07-1982	JP 1040067 B JP 1577467 C	24-08-1989 24-08-1990
JP 1313573 A	19-12-1989	NONE	
JP 3007757 A	14-01-1991	JP 1693615 C JP 3059102 B	17-09-1992 09-09-1991
US 4242253 A	30-12-1980	NONE	
EP 0600546 A	08-06-1994	NL 9301239 A AT 178930 T AU 666412 B AU 5206493 A BE 1007804 A BG 62366 B BG 98252 A BR 9304893 A CA 2110193 A,C CN 1089290 A,B CN 1195680 A CZ 9302587 A DE 4340974 A DE 69324449 D DE 69324449 T DK 600546 T ES 2131554 T FI 935344 A GR 3030736 T HU 67429 A IL 107806 A JP 2798592 B JP 6336561 A MX 9307493 A NO 934352 A NZ 250321 A PL 301250 A PL 174401 B RO 113473 B SK 134593 A US 5728779 A ZA 9308961 A AT 168394 T AU 680504 B AU 6857394 A CZ 9502943 A DE 69411731 D EP 0698053 A ES 2121208 T JP 8510001 T WO 9426808 A NO 954558 A US 5789493 A CN 1123032 A	01-02-1995 15-04-1999 08-02-1996 16-06-1994 24-10-1995 30-09-1999 15-07-1994 05-07-1994 02-06-1994 13-07-1994 14-10-1998 15-06-1994 16-06-1994 20-05-1999 16-12-1999 25-10-1999 01-08-1999 02-06-1994 30-11-1999 28-04-1995 16-08-1998 17-09-1998 06-12-1994 31-08-1994 02-06-1994 28-03-1995 13-06-1994 31-07-1998 30-07-1998 06-07-1994 17-03-1998 30-05-1995 15-08-1998 31-07-1997 12-12-1994 14-02-1996 20-08-1998 28-02-1996 16-11-1998 22-10-1996 24-11-1994 13-11-1995 04-08-1998 22-05-1996

# PATENT COOPERATION TREATY

10/031135 WO 01/05901  
PCT/EP00/06423


AC

PCT

From the INTERNATIONAL BUREAU

## NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To: VANTICO AG Patents/Scientific Information Klybeckstrasse 200 CH-4057 Basel SUISSE	
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Date of mailing (day/month/year) 25 January 2001 (25.01.01)		
Applicant's or agent's file reference CS/K-22046/A		
<b>IMPORTANT NOTICE</b>		
International application No. PCT/EP00/06423	International filing date (day/month/year) 06 July 2000 (06.07.00)	Priority date (day/month/year) 14 July 1999 (14.07.99)
Applicant VANTICO AG et al		

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:
- AU,KP,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:
- AE,AG,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,BZ,CA,CH,CN,CR,CU,CZ,DE,DK,DM,DZ,EA,EE,EP,ES,FI,GB,GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,MZ,NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU.
- The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).
3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 25 January 2001 (25.01.01) under No. WO 01/05901

### REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

### REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer  J. Zahra  Telephone No. (41-22) 338.83.38
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Continuation of Form PCT/IB/308

**NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF  
THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES**

<b>Date of mailing (day/month/year)</b> 25 January 2001 (25.01.01)	<b>IMPORTANT NOTICE</b>
<b>Applicant's or agent's file reference</b> CS/K-22046/A	<b>International application No.</b> PCT/EP00/06423
<p>The applicant is hereby notified that, at the time of establishment of this Notice, the time limit under Rule 46.1 for making amendments under Article 19 has not yet expired and the International Bureau had received neither such amendments nor a declaration that the applicant does not wish to make amendments.</p>	